

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,319	12/10/1999	AIDAN JAMES SMYTH	SEDN/043	8719
56015 7590 10/16/2007 PATTERSON & SHERIDAN, LLP/ SEDNA PATENT SERVICES, LLC 595 SHREWSBURY AVENUE SUITE 100 SHREWSBURY, NJ 07702			EXAMINER RAMAN, USHA	
			ART UNIT 2623	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/458,319	SMYTH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Usha Raman	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 1<sup>st</sup>, 2007 has been entered.

***Response to Arguments***

1. Applicant's arguments filed August 1<sup>st</sup> 2007 have been fully considered but they are not persuasive.

Applicant's arguments (see Remarks, page 9) stating that, "splicing points taught by the Applicant's invention and I-frames used by DeMoney and Day are not the same" are noted. However, the amended claims are recited broadly fail to establish the distinction, and hence fail to overcome the current rejection of record. Moreover, DeMoney teaches the amended claimed limitations of "wherein splicing entry and exit points are identified within transport packet headers of each of the plurality of content streams" (See DeMoney: column 5, lines 50-52, c9olumn 9, lines 25-30, "in the case of an MPEG2 transport stream, the 'random access indicator' is set within the transport packet header", further noting that "switching the output between different streams, only occurs at well defined 'random access' points"). DeMoney therefore shows that entry and exit of streams (i.e. splicing) may occur only at defined "random access" points, and further that these random

access indicators are set within a transport header. Applicant's argues (see Remarks, page 8) that "Day only teaches concatenating entire video segments one after another to provide seamless video to a viewer" and therefore fails to teach the limitation of "each content stream comprising a plurality of splicing entry and exit points dispersed therein to *enable* transitioning between the plurality of content streams, wherein splicing entry and exit points are identified within transport packet headers of each one of the plurality of content streams". However, as stated above, DeMoney notes that random access points are one of the characteristics of MPEG2 video, wherein they are the well defined splicing points enabling entry and exit points dispersed about a file, and defined within the transport packet headers. As Day teaches the use of MPEG file content system, the system modified in view of DeMoney's teaching using specifically MPEG2 format video inherently has the characteristics of the splicing entry/exit points in the transport packet headers as taught by DeMoney.

Applicant's argues (see Remarks, page 10) that, "Day and DeMoney cannot be meaningfully combined" because "Day teaches a method that concatenates entire video segments in stark contrast to DeMoney that teaches indexing within a multimedia stream to create look up tables", concluding that, "it is reasonable to interpret Day such that if trick play streams are used by Day, then the trick play streams would be played in a similar manner by concatenating the trick play streams one after another". The examiner respectfully disagrees with applicant's characterization of the modified system because one must understand the motive

Art Unit: 2623

and the context of the Day's "concatenation" step before blindly applying it to any scenario and jumping to such conclusions. Day teaches that streams are concatenated to provide *seamless* presentation to the viewer when viewing multiple video segments from a playlist, who might otherwise experience a *discontinuity* between video segments are a result of *delay* in processing the second or subsequent video segments. The solution taught by Day is to retrieve and initialize the second or subsequent video segment at a predetermined time point prior to the end of a currently playing segment, so that as soon as the current segment has completed playback, the next clip is available and ready for playback, i.e. Day pre-fetches the next clip in a play-list, thereby reducing the latency that would be incurred in retrieving and initializing those clips. The trick play streams as taught by DeMoney exist that enable switching between streams (i.e. NPT stream, FF stream and REW stream) when the user utilizes trick play functions. One of ordinary skill in the art would not be motivated to modify this system to concatenate trick play streams with the normal play stream of a content as suggested by the applicant. Rather one of ordinary skill in the art would be modified to concatenate a the next content item in a play list so that as soon as current segment has completed playing, the next segment is available and ready for playing. Furthermore, it should be noted that the system does not switch to trick play streams (i.e. they are not played) until a user uses one of the trick play functions. Therefore, in the modified system, a FF or REW stream of content may never be played back if the user did not utilize the FF or REW functions. Therefore,

Art Unit: 2623

applicant's "reasonable" interpretation is in fact a mischaracterization of the modified system.

For the reasons stated above, the rejection under Day in view of DeMoney and Katinsky is maintained.

***Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Day et al. (US Pat. 5,996,015) in view of DeMoney (US Pat. 6,065,050), and Katinsky et al. (US Pat. 6,452,609).

In regards to claims 8 and 16, Day discloses an information distribution system including provider equipment (201) and subscriber equipment (203), wherein provider equipment communicates to said subscriber equipment information streams including content requested by said subscriber equipment (see column 3, lines 10-20 and lines 43-46), comprising:

a session manager, for interacting with said subscriber equipment and maintaining a plurality of playlists (multiple data pumps service a plurality of clients by streaming data to a plurality of clients, therefore multiple playlists are generated for each of plurality clients, see column 3, lines 30-31, lines 43-47, and lines 55-58) wherein each playlist (i.e. provides stream control functions for controlling the

Art Unit: 2623

playback of media. See column 3, lines 58-61, column 4 lines 1-2 and column 5, lines 43-45) is associated with a respective subscriber, said playlist defining plurality of content streams to be provided to the subscriber ("selected video segments", see column 6, lines 28-29). The session manager further inherently "stores" (by caching) the generated playlist at the server while the session is alive, in order to access the playlist for playback of next media clip.

a server for storing content streams (data pump 111 stores multimedia assets. See column 3, lines 43-45); and

a server controller for retrieving from said server, content streams defined by said playlist, said content streams being sequentially provided to said subscriber equipment (see column 5, lines 45-54, column 6, lines 40-50);

Day also discloses that during the playback of clips from a playlist the system determines if additional clips in the playlist are present, and in the event there are additional clips, it retrieves the additional clips and concatenates it to the current clip so that the clip maybe played seamlessly. See Day: column 6, lines 36-64. Furthermore, while the session is active, the system checks for additional clips in the playlist, to determine if additional data needs to be retrieved. Therefore, the system also comprises the step of "continuously accessing playlist" while the session is active, in order to determine when the next clip needs to be retrieved in order to be streamed to the user.

While Day teaches controlling the playback of a content stream using VCR style functions (see column 5, lines 43-45), Day is silent on how VCR style



functionalities are achieved. The system therefore is silent on the step of associating a fast forward and reverse stream with the content streams or modifying the play list in response to play list modification commands from a subscriber equipment.

In a similar field of endeavor, DeMoney details on implementing VCR style functions. DeMoney teaches accomplishing VCR style functions by maintaining normal play stream with a look up table and associating the trick play streams (such as fast forward and fast reverse streams) with the content stream. When a user changes the playback rates (i.e. change of attribute) of the content stream using VCR type functions, the media server switches the respective trick play stream associated with the command, based on the offset from the look up table. Note column 4, lines 59-67 and column 5, lines 1-60 of DeMoney. DeMoney further discloses that switching of streams occurs only at well-defined "random-access" points (i.e. splicing points). Note column 5, lines 47-52, column 9, lines 25-30. The index table contains a list of the offset points that mark the entry and exit points. The content streams have the entry and the exit points because the streams are accessible at random access points. See column 9, lines 25-30. When a content stream is switched, the media server looks for an offset in the next content stream (i.e. an entry point in the next content stream) that is just beyond the current output offset (i.e. exit point of the current content stream). Note column 10, lines 31-53. DeMoney also teaches the step of identifying splicing exit/entry points (i.e. random access points) within in the transport packet headers of each of



Art Unit: 2623

the plurality of content streams (See DeMoney: column 5, lines 50-52, c9olumn 9, lines 25-30, "in the case of an MPEG2 transport stream, the 'random access indicator' is set within the transport packet header", further noting that "switching the output between different streams, only occurs at well defined 'random access' points").

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Day in view of DeMoney's teachings by maintaining a look up table associating trick play streams with the content streams as an "additional information" relating to the content stream (see column 4, lines 8-22 in Day) for providing trick play functionality by indexing, in order to reduce processing requirement of the video server. The modified system further contains plurality of splicing points for each content stream, where the next content stream is spliced at an entry point (next offset) associated with an exit point (current offset) of a current stream.

The modified system of Day in view of DeMoney lacks modifying the play list in response to play list modification commands sent from subscriber equipment.

Katinsky teaches a user-friendly media player interface that initiates and manages a session with content provider (i.e. "session manager") by creating and maintaining a sequencer (play list) with content streams to be played at the subscriber equipment, where the media player further allows the user to modify the play list. Note column 3, lines 43-54 and column 4, lines 10-20 of Katinsky. Using the media player interface, the subscriber can modify the play list by adding or

deleting content streams as well as skip forward and backward to a content stream to be played. Note column 6, lines 19-26 and column 2, lines 55-57 in Katinsky.

It would have been obvious to further modify the system of Day in view of DeMoney with Katinsky's teachings by providing a play-list modification capabilities of Katinsky in order to allow the user to dynamically modify or change the sequence of media content streams to be played.

In further regards to claim 16, Day further discloses that the playlist is generated at the provider equipment. See column 6, lines 14-30 in Day. Furthermore, the session manager of the modified system controls the media session in response to all the user commands, including playlist modification commands.

In regards to claims 9 and 17, the modified system provides modification commands such as fast forward, fast reverse as well as skip forward and skip backwards commands (see column 6, lines 19-26 in Katinsky).

In regards to claims 10 and 18, the modified system provides a session manager with "add" and "delete" functionalities that allow media objects to be added or removed from the play list. Note column 2, lines 55-57.

In regards to claim 11, the modified system provides a session manager with skip forward and skip backward functionalities to skip to next or previous clip in the play-list. Note figure 7, reference numbers (106) and (107) and description in column 6, lines 19-26 of Katinsky.

In regards to claims 12 and 19, the modified system provides a session manager with trick play functionalities that allow a fast reverse and fast forward stream to be associated with the content stream in response to fast forward and fast reverse commands. Note column 5, lines 25-60 of DeMoney.

In regards to claims 13 and 20, Day discloses that at a predetermined point (threshold level) prior to the end of the current data stream, an initialization process begins for the next video segment on the play list, to prepare the next data stream to be seamlessly concatenated to the end of the current data stream. Note column 6, lines 31-64 of Day. Therefore the modified system of Day in view of DeMoney and Katinsky has "termination notification" means that is communicated to the server when the current data stream reaches the predetermined point (the threshold level).

In regards to claims 14 and 21, upon reaching the predetermined point prior to the end of the current data stream, the session manager indicates to the server controller the next content stream to be provided to the subscriber equipment.

In regards to claim 15, the multimedia files in the modified system are striped across disks of a plurality of storage servers. Note column 3, lines 15-20, lines 39-67, and column 4, lines 23-30 of Day. The data pump acts as the "transport processor", where under the control of the server controller, delivers the media assets to the subscriber equipment.

Art Unit: 2623

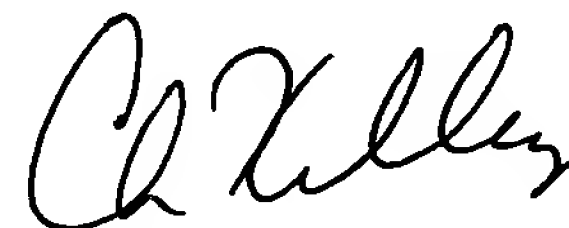
**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UR



CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600